



PROJECT DETAILS: Weld County, CO NAD 83

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level
Local North: True

Project: Weld County, CO NAD 83
Site: Anschutz Equus Farms 4-62-9_10 CW2 Pad
Well: Anschutz Equus Farms 4-62-9-3340B2
Wellbore: OH
Design: Plan 1



Azimuths to True North
Magnetic North: 8.27°



Magnetic Field
Strength: 52611.2snT
Dip Angle: 66.98°
Date: 10/27/2015
Model: BGGM2015

Plan: Plan 1 (Anschutz Equus Farms 4-62-9-3340B2/OH)

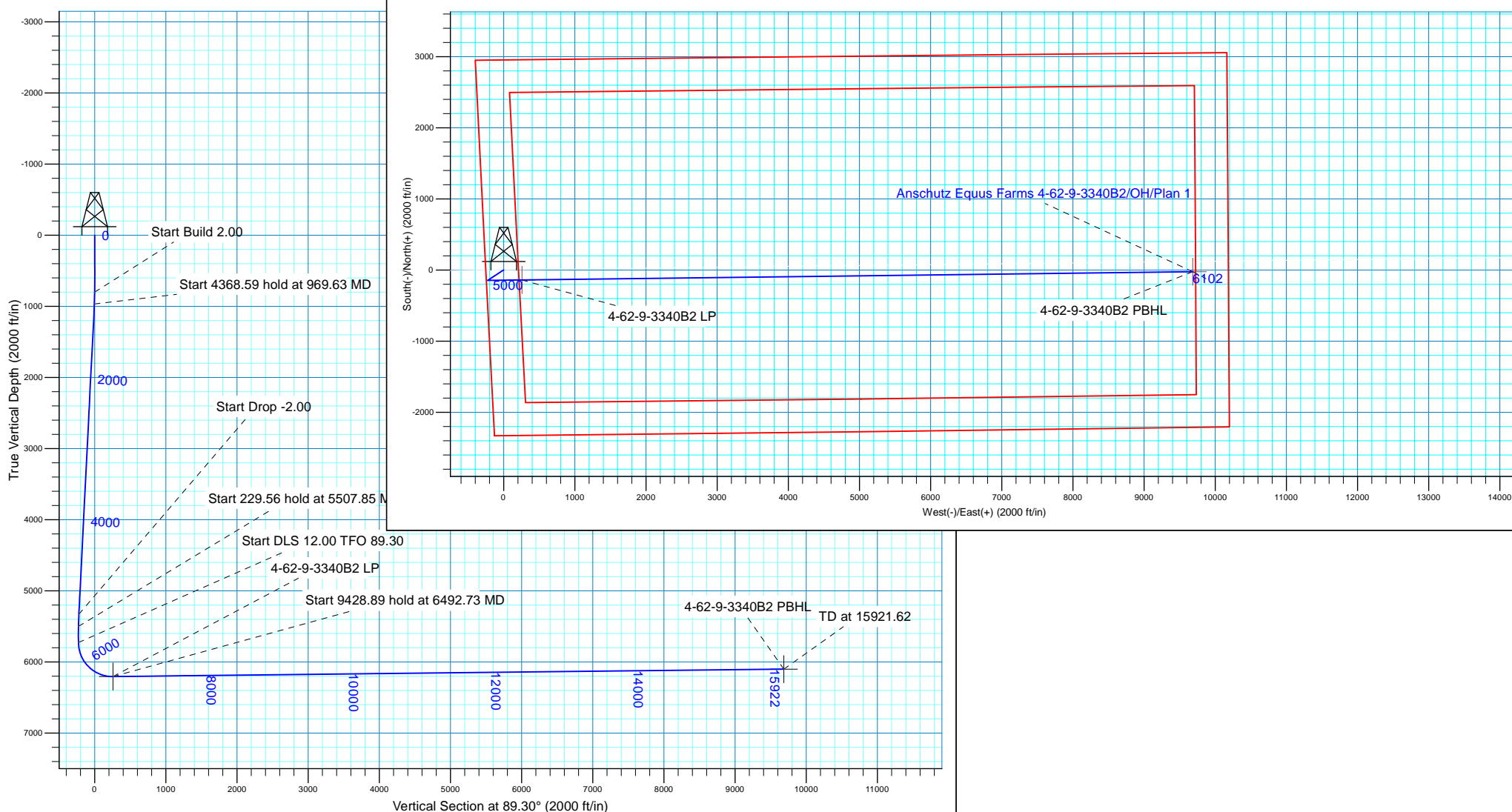
Created By: Seth Burstad Date: 10-27-2015

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00
969.63	3.39	236.84	969.53	-2.75	-4.20	2.00	236.84	-4.24
5338.22	3.39	236.84	5330.47	-144.14	-220.64	0.00	0.00	-222.38
5507.85	0.00	0.00	5500.00	-146.89	-224.84	2.00	180.00	-226.62
5737.41	0.00	0.00	5729.56	-146.89	-224.84	0.00	0.00	-226.62
6492.73	90.64	89.30	6207.00	-140.97	257.91	12.00	89.30	256.16
15921.62	90.64	89.30	6102.00	-25.41	9685.50	0.00	0.00	9684.47

WELL DETAILS: Anschutz Equus Farms 4-62-9-3340B2

		GL 4528' & KB 16' @ 4544.00ft		4528.00	Longitude
+N/-S	+E/-W	Northing	Easting	Latitude	
0.00	0.00	1363670.98	3323829.01	40° 19' 33.081 N	104° 20' 18.668 W





Bill Barrett Corp.

Weld County, CO NAD 83

Anschutz Equus Farms 4-62-9_10 CW2 Pad

Anschutz Equus Farms 4-62-9-3340B2

OH

Plan: Plan 1

Standard Planning Report

27 October, 2015



Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-3340B2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4528' & KB 16' @ 4544.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4528' & KB 16' @ 4544.00ft
Site:	Anschutz Equus Farms 4-62-9_10 CW2 Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-3340B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Project	Weld County, CO NAD 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Anschutz Equus Farms 4-62-9_10 CW2 Pad, Site Center : 4-62-9-3340D2			
Site Position:		Northing:	1,363,655.71 usft	Latitude: 40° 19' 32.930 N
From:	Lat/Long	Easting:	3,323,830.61 usft	Longitude: 104° 20' 18.650 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence: 0.75 °

Well	Anschutz Equus Farms 4-62-9-3340B2, 2330' FSL 250' FWL Sec 9 T4N R62W			
Well Position	+N/-S	15.28 ft	Northing:	1,363,670.97 usft
	+E/-W	-1.39 ft	Easting:	3,323,829.02 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level: 4,528.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2015	10/27/2015	8.27	66.98	52,611

Design	Plan 1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	89.30

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
969.63	3.39	236.84	969.54	-2.75	-4.20	2.00	2.00	0.00	236.84	
5,338.22	3.39	236.84	5,330.47	-144.14	-220.64	0.00	0.00	0.00	0.00	
5,507.85	0.00	0.00	5,500.00	-146.89	-224.84	2.00	-2.00	0.00	180.00	
5,737.41	0.00	0.00	5,729.56	-146.89	-224.84	0.00	0.00	0.00	0.00	
6,492.73	90.64	89.30	6,207.00	-140.97	257.91	12.00	12.00	11.82	89.30	
15,921.62	90.64	89.30	6,102.00	-25.40	9,685.50	0.00	0.00	0.00	0.00	4-62-9-3340B2 PBHL

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-3340B2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4528' & KB 16' @ 4544.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4528' & KB 16' @ 4544.00ft
Site:	Anschutz Equus Farms 4-62-9_10 CW2 Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-3340B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
900.00	2.00	236.84	899.98	-0.95	-1.46	-1.47	2.00	2.00	0.00
969.63	3.39	236.84	969.54	-2.75	-4.20	-4.24	2.00	2.00	0.00
Start 4368.59 hold at 969.63 MD									
1,000.00	3.39	236.84	999.85	-3.73	-5.71	-5.75	0.00	0.00	0.00
1,100.00	3.39	236.84	1,099.67	-6.97	-10.66	-10.75	0.00	0.00	0.00
1,200.00	3.39	236.84	1,199.50	-10.20	-15.62	-15.74	0.00	0.00	0.00
1,300.00	3.39	236.84	1,299.32	-13.44	-20.57	-20.73	0.00	0.00	0.00
1,400.00	3.39	236.84	1,399.15	-16.68	-25.52	-25.73	0.00	0.00	0.00
1,500.00	3.39	236.84	1,498.97	-19.91	-30.48	-30.72	0.00	0.00	0.00
1,600.00	3.39	236.84	1,598.80	-23.15	-35.43	-35.71	0.00	0.00	0.00
1,700.00	3.39	236.84	1,698.62	-26.39	-40.39	-40.71	0.00	0.00	0.00
1,800.00	3.39	236.84	1,798.45	-29.62	-45.34	-45.70	0.00	0.00	0.00
1,900.00	3.39	236.84	1,898.27	-32.86	-50.30	-50.69	0.00	0.00	0.00
2,000.00	3.39	236.84	1,998.10	-36.10	-55.25	-55.69	0.00	0.00	0.00
2,100.00	3.39	236.84	2,097.92	-39.33	-60.21	-60.68	0.00	0.00	0.00
2,200.00	3.39	236.84	2,197.74	-42.57	-65.16	-65.67	0.00	0.00	0.00
2,300.00	3.39	236.84	2,297.57	-45.81	-70.11	-70.67	0.00	0.00	0.00
2,400.00	3.39	236.84	2,397.39	-49.04	-75.07	-75.66	0.00	0.00	0.00
2,500.00	3.39	236.84	2,497.22	-52.28	-80.02	-80.66	0.00	0.00	0.00
2,600.00	3.39	236.84	2,597.04	-55.52	-84.98	-85.65	0.00	0.00	0.00
2,700.00	3.39	236.84	2,696.87	-58.75	-89.93	-90.64	0.00	0.00	0.00
2,800.00	3.39	236.84	2,796.69	-61.99	-94.89	-95.64	0.00	0.00	0.00
2,900.00	3.39	236.84	2,896.52	-65.23	-99.84	-100.63	0.00	0.00	0.00
3,000.00	3.39	236.84	2,996.34	-68.46	-104.79	-105.62	0.00	0.00	0.00
3,100.00	3.39	236.84	3,096.17	-71.70	-109.75	-110.62	0.00	0.00	0.00
3,200.00	3.39	236.84	3,195.99	-74.94	-114.70	-115.61	0.00	0.00	0.00
3,300.00	3.39	236.84	3,295.82	-78.17	-119.66	-120.60	0.00	0.00	0.00
3,400.00	3.39	236.84	3,395.64	-81.41	-124.61	-125.60	0.00	0.00	0.00
3,500.00	3.39	236.84	3,495.47	-84.65	-129.57	-130.59	0.00	0.00	0.00
3,600.00	3.39	236.84	3,595.29	-87.88	-134.52	-135.58	0.00	0.00	0.00
3,700.00	3.39	236.84	3,695.12	-91.12	-139.47	-140.58	0.00	0.00	0.00
3,800.00	3.39	236.84	3,794.94	-94.36	-144.43	-145.57	0.00	0.00	0.00
3,900.00	3.39	236.84	3,894.77	-97.59	-149.38	-150.56	0.00	0.00	0.00
4,000.00	3.39	236.84	3,994.59	-100.83	-154.34	-155.56	0.00	0.00	0.00
4,100.00	3.39	236.84	4,094.41	-104.07	-159.29	-160.55	0.00	0.00	0.00
4,200.00	3.39	236.84	4,194.24	-107.30	-164.25	-165.54	0.00	0.00	0.00
4,300.00	3.39	236.84	4,294.06	-110.54	-169.20	-170.54	0.00	0.00	0.00
4,400.00	3.39	236.84	4,393.89	-113.78	-174.15	-175.53	0.00	0.00	0.00
4,500.00	3.39	236.84	4,493.71	-117.01	-179.11	-180.52	0.00	0.00	0.00
4,550.37	3.39	236.84	4,544.00	-118.64	-181.60	-183.04	0.00	0.00	0.00
BASE OF FOX HILLS									
4,600.00	3.39	236.84	4,593.54	-120.25	-184.06	-185.52	0.00	0.00	0.00
4,698.63	3.39	236.84	4,692.00	-123.44	-188.95	-190.44	0.00	0.00	0.00
SHANNON									

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-3340B2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4528' & KB 16' @ 4544.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4528' & KB 16' @ 4544.00ft
Site:	Anschutz Equus Farms 4-62-9_10 CW2 Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-3340B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,700.00	3.39	236.84	4,693.36	-123.49	-189.02	-190.51	0.00	0.00	0.00
4,800.00	3.39	236.84	4,793.19	-126.72	-193.97	-195.51	0.00	0.00	0.00
4,900.00	3.39	236.84	4,893.01	-129.96	-198.93	-200.50	0.00	0.00	0.00
5,000.00	3.39	236.84	4,992.84	-133.20	-203.88	-205.49	0.00	0.00	0.00
5,100.00	3.39	236.84	5,092.66	-136.43	-208.83	-210.49	0.00	0.00	0.00
5,200.00	3.39	236.84	5,192.49	-139.67	-213.79	-215.48	0.00	0.00	0.00
5,300.00	3.39	236.84	5,292.31	-142.91	-218.74	-220.47	0.00	0.00	0.00
5,338.22	3.39	236.84	5,330.47	-144.14	-220.64	-222.38	0.00	0.00	0.00
Start Drop -2.00									
5,400.00	2.16	236.84	5,392.17	-145.78	-223.14	-224.90	2.00	-2.00	0.00
5,500.00	0.16	236.84	5,492.15	-146.88	-224.83	-226.61	2.00	-2.00	0.00
5,507.85	0.00	0.00	5,500.00	-146.89	-224.84	-226.62	2.00	-2.00	0.00
Start 229.56 hold at 5507.85 MD									
5,600.00	0.00	0.00	5,592.15	-146.89	-224.84	-226.62	0.00	0.00	0.00
5,700.00	0.00	0.00	5,692.15	-146.89	-224.84	-226.62	0.00	0.00	0.00
5,737.41	0.00	0.00	5,729.56	-146.89	-224.84	-226.62	0.00	0.00	0.00
Start DLS 12.00 TFO 89.30									
5,800.00	7.51	89.30	5,791.97	-146.84	-220.74	-222.52	12.00	12.00	0.00
5,900.00	19.51	89.30	5,889.02	-146.55	-197.43	-199.20	12.00	12.00	0.00
5,988.23	30.10	89.30	5,969.00	-146.10	-160.47	-162.24	12.00	12.00	0.00
SHARON SPRINGS									
6,000.00	31.51	89.30	5,979.11	-146.03	-154.44	-156.21	12.00	12.00	0.00
6,100.00	43.51	89.30	6,058.29	-145.28	-93.67	-95.43	12.00	12.00	0.00
6,115.00	45.31	89.30	6,069.00	-145.15	-83.17	-84.94	12.00	12.00	0.00
NIOBRARA									
6,164.61	51.26	89.30	6,102.00	-144.70	-46.15	-47.92	12.00	12.00	0.00
TD (HORIZONTAL)									
6,185.99	53.83	89.30	6,115.00	-144.49	-29.19	-30.95	12.00	12.00	0.00
A CHALK									
6,200.00	55.51	89.30	6,123.10	-144.35	-17.76	-19.52	12.00	12.00	0.00
6,214.26	57.22	89.30	6,131.00	-144.21	-5.88	-7.65	12.00	12.00	0.00
A MARL									
6,300.00	67.51	89.30	6,170.71	-143.28	69.96	68.21	12.00	12.00	0.00
6,326.00	70.63	89.30	6,180.00	-142.98	94.25	92.49	12.00	12.00	0.00
TOP "B" TARGET									
6,400.00	79.51	89.30	6,199.05	-142.10	165.67	163.92	12.00	12.00	0.00
6,492.30	90.64	89.30	6,207.00	-140.98	257.48	255.74	12.06	12.06	0.00
LANDING POINT									
6,492.73	90.64	89.30	6,207.00	-140.97	257.91	256.16	0.00	0.00	0.00
Start 9428.89 hold at 6492.73 MD									
6,500.00	90.64	89.30	6,206.91	-140.88	265.17	263.43	0.00	0.00	0.00
6,600.00	90.64	89.30	6,205.80	-139.66	365.16	363.43	0.00	0.00	0.00
6,700.00	90.64	89.30	6,204.69	-138.43	465.15	463.42	0.00	0.00	0.00
6,800.00	90.64	89.30	6,203.57	-137.21	565.13	563.41	0.00	0.00	0.00
6,900.00	90.64	89.30	6,202.46	-135.98	665.12	663.41	0.00	0.00	0.00
7,000.00	90.64	89.30	6,201.35	-134.75	765.10	763.40	0.00	0.00	0.00
7,100.00	90.64	89.30	6,200.23	-133.53	865.09	863.39	0.00	0.00	0.00
7,200.00	90.64	89.30	6,199.12	-132.30	965.08	963.39	0.00	0.00	0.00
7,300.00	90.64	89.30	6,198.01	-131.08	1,065.06	1,063.38	0.00	0.00	0.00
7,400.00	90.64	89.30	6,196.89	-129.85	1,165.05	1,163.38	0.00	0.00	0.00
7,500.00	90.64	89.30	6,195.78	-128.63	1,265.04	1,263.37	0.00	0.00	0.00
7,600.00	90.64	89.30	6,194.67	-127.40	1,365.02	1,363.36	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-3340B2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4528' & KB 16' @ 4544.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4528' & KB 16' @ 4544.00ft
Site:	Anschutz Equus Farms 4-62-9_10 CW2 Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-3340B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,700.00	90.64	89.30	6,193.55	-126.18	1,465.01	1,463.36	0.00	0.00	0.00
7,800.00	90.64	89.30	6,192.44	-124.95	1,564.99	1,563.35	0.00	0.00	0.00
7,900.00	90.64	89.30	6,191.32	-123.72	1,664.98	1,663.35	0.00	0.00	0.00
8,000.00	90.64	89.30	6,190.21	-122.50	1,764.97	1,763.34	0.00	0.00	0.00
8,100.00	90.64	89.30	6,189.10	-121.27	1,864.95	1,863.33	0.00	0.00	0.00
8,200.00	90.64	89.30	6,187.98	-120.05	1,964.94	1,963.33	0.00	0.00	0.00
8,300.00	90.64	89.30	6,186.87	-118.82	2,064.93	2,063.32	0.00	0.00	0.00
8,400.00	90.64	89.30	6,185.76	-117.60	2,164.91	2,163.31	0.00	0.00	0.00
8,500.00	90.64	89.30	6,184.64	-116.37	2,264.90	2,263.31	0.00	0.00	0.00
8,600.00	90.64	89.30	6,183.53	-115.14	2,364.88	2,363.30	0.00	0.00	0.00
8,700.00	90.64	89.30	6,182.42	-113.92	2,464.87	2,463.30	0.00	0.00	0.00
8,800.00	90.64	89.30	6,181.30	-112.69	2,564.86	2,563.29	0.00	0.00	0.00
8,900.00	90.64	89.30	6,180.19	-111.47	2,664.84	2,663.28	0.00	0.00	0.00
9,000.00	90.64	89.30	6,179.08	-110.24	2,764.83	2,763.28	0.00	0.00	0.00
9,100.00	90.64	89.30	6,177.96	-109.02	2,864.82	2,863.27	0.00	0.00	0.00
9,200.00	90.64	89.30	6,176.85	-107.79	2,964.80	2,963.26	0.00	0.00	0.00
9,300.00	90.64	89.30	6,175.74	-106.56	3,064.79	3,063.26	0.00	0.00	0.00
9,400.00	90.64	89.30	6,174.62	-105.34	3,164.78	3,163.25	0.00	0.00	0.00
9,500.00	90.64	89.30	6,173.51	-104.11	3,264.76	3,263.25	0.00	0.00	0.00
9,600.00	90.64	89.30	6,172.39	-102.89	3,364.75	3,363.24	0.00	0.00	0.00
9,700.00	90.64	89.30	6,171.28	-101.66	3,464.73	3,463.23	0.00	0.00	0.00
9,800.00	90.64	89.30	6,170.17	-100.44	3,564.72	3,563.23	0.00	0.00	0.00
9,900.00	90.64	89.30	6,169.05	-99.21	3,664.71	3,663.22	0.00	0.00	0.00
10,000.00	90.64	89.30	6,167.94	-97.98	3,764.69	3,763.21	0.00	0.00	0.00
10,100.00	90.64	89.30	6,166.83	-96.76	3,864.68	3,863.21	0.00	0.00	0.00
10,200.00	90.64	89.30	6,165.71	-95.53	3,964.67	3,963.20	0.00	0.00	0.00
10,300.00	90.64	89.30	6,164.60	-94.31	4,064.65	4,063.20	0.00	0.00	0.00
10,400.00	90.64	89.30	6,163.49	-93.08	4,164.64	4,163.19	0.00	0.00	0.00
10,500.00	90.64	89.30	6,162.37	-91.86	4,264.62	4,263.18	0.00	0.00	0.00
10,600.00	90.64	89.30	6,161.26	-90.63	4,364.61	4,363.18	0.00	0.00	0.00
10,700.00	90.64	89.30	6,160.15	-89.40	4,464.60	4,463.17	0.00	0.00	0.00
10,800.00	90.64	89.30	6,159.03	-88.18	4,564.58	4,563.17	0.00	0.00	0.00
10,900.00	90.64	89.30	6,157.92	-86.95	4,664.57	4,663.16	0.00	0.00	0.00
11,000.00	90.64	89.30	6,156.80	-85.73	4,764.56	4,763.15	0.00	0.00	0.00
11,100.00	90.64	89.30	6,155.69	-84.50	4,864.54	4,863.15	0.00	0.00	0.00
11,200.00	90.64	89.30	6,154.58	-83.28	4,964.53	4,963.14	0.00	0.00	0.00
11,300.00	90.64	89.30	6,153.46	-82.05	5,064.51	5,063.13	0.00	0.00	0.00
11,400.00	90.64	89.30	6,152.35	-80.82	5,164.50	5,163.13	0.00	0.00	0.00
11,500.00	90.64	89.30	6,151.24	-79.60	5,264.49	5,263.12	0.00	0.00	0.00
11,600.00	90.64	89.30	6,150.12	-78.37	5,364.47	5,363.12	0.00	0.00	0.00
11,700.00	90.64	89.30	6,149.01	-77.15	5,464.46	5,463.11	0.00	0.00	0.00
11,800.00	90.64	89.30	6,147.90	-75.92	5,564.45	5,563.10	0.00	0.00	0.00
11,900.00	90.64	89.30	6,146.78	-74.70	5,664.43	5,663.10	0.00	0.00	0.00
12,000.00	90.64	89.30	6,145.67	-73.47	5,764.42	5,763.09	0.00	0.00	0.00
12,100.00	90.64	89.30	6,144.56	-72.25	5,864.41	5,863.08	0.00	0.00	0.00
12,200.00	90.64	89.30	6,143.44	-71.02	5,964.39	5,963.08	0.00	0.00	0.00
12,300.00	90.64	89.30	6,142.33	-69.79	6,064.38	6,063.07	0.00	0.00	0.00
12,400.00	90.64	89.30	6,141.22	-68.57	6,164.36	6,163.07	0.00	0.00	0.00
12,500.00	90.64	89.30	6,140.10	-67.34	6,264.35	6,263.06	0.00	0.00	0.00
12,600.00	90.64	89.30	6,138.99	-66.12	6,364.34	6,363.05	0.00	0.00	0.00
12,700.00	90.64	89.30	6,137.87	-64.89	6,464.32	6,463.05	0.00	0.00	0.00
12,800.00	90.64	89.30	6,136.76	-63.67	6,564.31	6,563.04	0.00	0.00	0.00
12,900.00	90.64	89.30	6,135.65	-62.44	6,664.30	6,663.04	0.00	0.00	0.00
13,000.00	90.64	89.30	6,134.53	-61.21	6,764.28	6,763.03	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-3340B2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4528' & KB 16' @ 4544.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4528' & KB 16' @ 4544.00ft
Site:	Anschutz Equus Farms 4-62-9_10 CW2 Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-3340B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
13,100.00	90.64	89.30	6,133.42	-59.99	6,864.27	6,863.02	0.00	0.00	0.00	
13,200.00	90.64	89.30	6,132.31	-58.76	6,964.25	6,963.02	0.00	0.00	0.00	
13,300.00	90.64	89.30	6,131.19	-57.54	7,064.24	7,063.01	0.00	0.00	0.00	
13,400.00	90.64	89.30	6,130.08	-56.31	7,164.23	7,163.00	0.00	0.00	0.00	
13,500.00	90.64	89.30	6,128.97	-55.09	7,264.21	7,263.00	0.00	0.00	0.00	
13,600.00	90.64	89.30	6,127.85	-53.86	7,364.20	7,362.99	0.00	0.00	0.00	
13,700.00	90.64	89.30	6,126.74	-52.63	7,464.19	7,462.99	0.00	0.00	0.00	
13,800.00	90.64	89.30	6,125.63	-51.41	7,564.17	7,562.98	0.00	0.00	0.00	
13,900.00	90.64	89.30	6,124.51	-50.18	7,664.16	7,662.97	0.00	0.00	0.00	
14,000.00	90.64	89.30	6,123.40	-48.96	7,764.14	7,762.97	0.00	0.00	0.00	
14,100.00	90.64	89.30	6,122.28	-47.73	7,864.13	7,862.96	0.00	0.00	0.00	
14,200.00	90.64	89.30	6,121.17	-46.51	7,964.12	7,962.95	0.00	0.00	0.00	
14,300.00	90.64	89.30	6,120.06	-45.28	8,064.10	8,062.95	0.00	0.00	0.00	
14,400.00	90.64	89.30	6,118.94	-44.05	8,164.09	8,162.94	0.00	0.00	0.00	
14,500.00	90.64	89.30	6,117.83	-42.83	8,264.08	8,262.94	0.00	0.00	0.00	
14,600.00	90.64	89.30	6,116.72	-41.60	8,364.06	8,362.93	0.00	0.00	0.00	
14,700.00	90.64	89.30	6,115.60	-40.38	8,464.05	8,462.92	0.00	0.00	0.00	
14,800.00	90.64	89.30	6,114.49	-39.15	8,564.03	8,562.92	0.00	0.00	0.00	
14,900.00	90.64	89.30	6,113.38	-37.93	8,664.02	8,662.91	0.00	0.00	0.00	
15,000.00	90.64	89.30	6,112.26	-36.70	8,764.01	8,762.91	0.00	0.00	0.00	
15,100.00	90.64	89.30	6,111.15	-35.47	8,863.99	8,862.90	0.00	0.00	0.00	
15,200.00	90.64	89.30	6,110.04	-34.25	8,963.98	8,962.89	0.00	0.00	0.00	
15,300.00	90.64	89.30	6,108.92	-33.02	9,063.97	9,062.89	0.00	0.00	0.00	
15,400.00	90.64	89.30	6,107.81	-31.80	9,163.95	9,162.88	0.00	0.00	0.00	
15,500.00	90.64	89.30	6,106.70	-30.57	9,263.94	9,262.87	0.00	0.00	0.00	
15,600.00	90.64	89.30	6,105.58	-29.35	9,363.93	9,362.87	0.00	0.00	0.00	
15,700.00	90.64	89.30	6,104.47	-28.12	9,463.91	9,462.86	0.00	0.00	0.00	
15,800.00	90.64	89.30	6,103.35	-26.89	9,563.90	9,562.86	0.00	0.00	0.00	
15,900.00	90.64	89.30	6,102.24	-25.67	9,663.88	9,662.85	0.00	0.00	0.00	
15,921.62	90.64	89.30	6,102.00	-25.40	9,685.50	9,684.47	0.00	0.00	0.00	
TD at 15921.62										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
4-62-9-3340B2 PBHL	0.00	0.00	6,102.00	-25.40	9,685.50	1,363,772.43	3,333,514.00	40° 19' 32.812 N	104° 18' 13.612 W	
- hit/miss target										
- Shape										
- Point										
4-62-9-3340B2 LP	0.00	0.00	6,207.00	-140.96	257.91	1,363,533.41	3,324,088.75	40° 19' 31.688 N	104° 20' 15.338 W	
- plan misses target center by 0.01ft at 6492.73ft MD (6207.00 TVD, -140.97 N, 257.91 E)										
- Point										

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-3340B2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4528' & KB 16' @ 4544.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4528' & KB 16' @ 4544.00ft
Site:	Anschutz Equus Farms 4-62-9_10 CW2 Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-3340B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,550.37	4,544.00	BASE OF FOX HILLS		0.00	
4,698.63	4,692.00	SHANNON		0.00	
5,988.23	5,969.00	SHARON SPRINGS		0.00	
6,115.00	6,069.00	NIOBRARA		0.00	
6,164.61	6,102.00	TD (HORIZONTAL)		0.00	
6,185.99	6,115.00	A CHALK		0.00	
6,214.26	6,131.00	A MARL		0.00	
6,326.00	6,180.00	TOP "B" TARGET		0.00	
6,492.30	6,207.00	LANDING POINT		0.00	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
800.00	800.00	0.00	0.00	Start Build 2.00
969.63	969.54	-2.75	-4.20	Start 4368.59 hold at 969.63 MD
5,338.22	5,330.47	-144.14	-220.64	Start Drop -2.00
5,507.85	5,500.00	-146.89	-224.84	Start 229.56 hold at 5507.85 MD
5,737.41	5,729.56	-146.89	-224.84	Start DLS 12.00 TFO 89.30
6,492.73	6,207.00	-140.97	257.91	Start 9428.89 hold at 6492.73 MD
15,921.62	6,102.00	-25.40	9,685.50	TD at 15921.62